

REMARKS

The Office Action mailed September 26, 2002, the time for responding to which was reset to February 13, 2003, has been received and reviewed. Claims 1-20 are pending. Claims 1, 2 and 4-20 are rejected in view of references cited. Claim 3 is objected to, but otherwise allowable.

Claims 4, 5 and 11 are amended. Claim 3 is cancelled and rewritten as new claim 21. The Applicant submits that the claims are in condition for allowance for the reasons set forth hereinafter.

Priority

The Examiner states that the Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under § 120. The Applicant submits that the claim to prior application Serial No. 09/004,010 is made in the first paragraph of the specification as filed, but has amended the specification further to claim priority to Serial No. 60/039,104.

Drawings

The Examiner notes corrections to the drawings are required. Corrected (replacement) FIGS. 2, 9, 11 and 14 are submitted herewith to correct the defects noted by the Examiner. No new matter is added.

Rejection Of Claims Under 35 U.S.C. § 112, Second Paragraph

Claims 4 and 11 are rejected under § 112 as being indefinite, and are amended to clarify. Claim 17 is rejected as being indefinite for the recitation of "a closeable opening extending from said distal edge." The Examiner queries if the recited closeable opening is the same as the closeable opening recited in claim 13, from which claim 17 depends. The Applicant respectfully submits that the meaning of claim 17 is clear and

that clarifying amendment is not required since claim 13 recites "a closeable opening extending from said proximal edge," which is distinguishable from claim 17 which recites "a closeable opening extending from said distal edge."

Rejection Of Claims 1 And 2 Under 35 U.S.C. § 102(b)

Claims 1 and 2 are rejected under 35 U.S.C. § 102(b) as being anticipated by Patent No. 5,383,845 to Nebolon. The Examiner states that Nebolon discloses that which is recited in claims 1 and 2 and is "capable" of providing active resistance to axial rotation and translation in a joint. The rejection is traversed. Claims 1 and 2 require at least one *circumferentially* spiraling bracing member where one (proximal) end is positioned on one side of a joint and the other (distal) end is positioned on the other side of the joint at a spiraling distance which defines a circumference about the joint. Neither of the support straps 14, 16 of Nebolon extend about the circumference of the joint as required (and, therefore, have no effect on axial rotation of the joint). Rather, both straps extend diagonally from a fixed proximal point in the front of the joint to a fixed distal point behind the joint defining a distance which is one half the circumference of the joint. Even if the embodiment of Nebolon shown in FIG. 3 is interpreted to provide a single support strap 14/16 that extends circumferentially about the joint (i.e., extends from rivet 44 to slots 64a/64b and back to rivet 44), it still fails to provide, as claimed, a bracing member that defines a "circumferentially spiraling distance extending between said proximal end and said distal end." That is, at best, Nebolon defines a circumferential spiraling distance extending from the distal end to the distal end. Nebolon does not disclose the claimed structure and does not anticipate claims 1 or 2.

Rejection Of Claims 1, 2, 4, 5, 18 and 19 Under 35 U.S.C. § 102(e)

Claims 1, 2, 4, 5, 18 and 19 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,063,048 to Bodenschatz et al. ("Bodenschatz"). The Examiner states that Bodenschatz discloses that which is recited in claims 1, 2, 4, 5, 18

and 19, and that Bodenschatz is "capable" of providing active resistance to axial rotation. The rejection is traversed with respect to claims 1, 2, 4, 18 and 19 since those claims require at least one *circumferentially* spiraling bracing member where one (proximal) end is positioned on one side of a joint and the other (distal) end is positioned on the other side of the joint at a spiraling distance which defines a circumference about the joint. Bodenschatz discloses a strap (30) that only extends diagonally from the side of a joint to the front of the joint (one quarter of the circumference of the joint). Claims 1 and 2 are not anticipated, therefore. Claim 5 is amended to overcome the rejection for the reasons stated with respect to claims 1, 2, 4, 18 and 19.

Rejection Of Claims 6, 9 and 12 Under 35 U.S.C. § 102(e)/§ 103(a)

Claims 6, 9 and 12 are rejected under 35 U.S.C. § 102(e) as being anticipated by Bodenschatz or, in the alternative, obviated by Bodenschatz. Claims 6, 9 and 12, by virtue of amended claim 5, require at least one circumferentially spiraling bracing member where one (proximal) end is positioned on one side of a joint and the other (distal) end is positioned on the other side of the joint at a spiraling distance which defines a circumference about the joint. Bodenschatz fails to teach the element as claimed and does not anticipate claims 6, 9 and 12 for that reason. Further, Bodenschatz fails to describe a structure having varying coefficients of elasticity. In absence of any explicit teaching to the contrary, the figures of Bodenschatz suggest that the rim portions 15, 17 have a higher coefficient of elasticity than the sleeve since the leg appears to be compressed less by the rim portions 15, 17 than by the sleeve.

Bodenschatz does not obviate claims 6, 9 or 12 because Bodenschatz does not teach or suggest a device which is capable of resisting axial rotation. Bodenschatz discloses a device which only compresses the joint by means of an elastic sleeve and further provides an elastically stretchable strap extending diagonally from the proximal end to the distal end of the sleeve. By its construction, the Bodenschatz device allows

the lower arm to rotate axially relative to the upper arm because the elastic strap will enable axial rotation. It is such axial rotation (i.e., one side of the joint rotating relative to the other side of the joint) which is resisted in the circumferentially spiraling brace as claimed. The Bodenschatz device cannot resist axial rotation, nor does the Bodenschatz disclosure teach that axial rotation is to be resisted. Therefore, Bodenschatz cannot obviate the claims.

Rejection Of Claims 7 and 10 Under 35 U.S.C. § 103(a)

Claims 7 and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bodenschatz in view of U.S. Patent No. 5,412,957 to Bradberry, et al. ("Bradberry"). The Examiner states that Bodenschatz fails to teach that proximal and distal portions partially encircle the sleeve to provide an expansion gap as claimed, but that Bradberry teaches that it is conventional in the art to provide sleeves with an elastic proximal portion providing an expansion gap as claimed. The rejection is traversed. For the reasons stated previously, Bodenschatz fails to teach or suggest a device which is structured to resist axial rotation in a joint. Additionally, Bodenschatz fails to teach or suggest a structure having different coefficients of elasticity as claimed. In fact, Bodenschatz appears to teach the opposite of what is claimed. Bradberry provides no teaching of a device as claimed. Therefore, neither Bodenschatz nor Bradberry, alone or in combination, obviate claims 7 and 10.

Rejection Of Claims 8 and 13-16 Under 35 U.S.C. § 103(a)

Claims 8 and 13-16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bodenschatz in view of U.S. Patent No. 5,507,722 to Richardson. The Examiner states that Bodenschatz fails to teach a first stabilizing strap as claimed, but that Richardson teaches that the claimed structure is conventional in the art. The Examiner further states that Bodenschatz fails to teach a closeable opening as required by claim 13, but that Richardson teaches such structure. The Examiner further states that

Richardson fails to teach a zipper as required by claim 14, but that it would be prima facie obvious to include a zipper fastener. The rejection is traversed. Bodenschatz does not teach or suggest that the rim portions 15, 17 of that device have a different coefficient of elasticity as claimed, and to the extent that any such inference can be gleaned from the figures of the Bodenschatz reference, it teaches that the difference in the coefficients of elasticity between the rim portions 15, 17 and the sleeve are the opposite of what is claimed. Additionally, Richardson does not teach proximal and distal portions as claimed and does not teach or suggest variances in coefficients of elasticity. In fact, Richardson teaches a device the concept of which is entirely different from Bodenschatz and the claimed invention. Richardson discloses fastening members that extend down the length of the device to assure that the device is secured about the wearer's limb along its entire length, rather than merely secured at the proximal end as claimed. In absence of such teaching, it would not be obvious from Richardson to employ a zipper fastener. Neither Bodenschatz nor Richardson, alone or in combination, teach what is claimed, and claims 8 and 13-16 are not obviated by either reference.

Rejection Of Claim 11 Under 35 U.S.C. § 103(a)

Claim 11 is rejected under § 103 (a) as being unpatentable over Bodenschatz in view of Bradberry as applied to claim 10 and further in view of Richardson. The Examiner states that Bodenschatz fails to teach a second (or distal) stabilizing strap, but that such strap is obvious from the Richardson disclosure. The rejection is traversed for the reasons stated above, namely that neither Bodenschatz, Bradberry nor Richardson teach or suggest a device for resisting axial rotation, and provide no teaching concerning providing such a device having different coefficients of elasticity as claimed. Additionally, none of the references, alone or in combination, teach a device having stabilizing straps associated with a proximal and distal portion of a sleeve. Again, Richardson teaches, at best, stabilizing straps down the longitudinal length of

that device to keep the device on the limb along the length of the device. None of the references, alone or in combination, obviate claim 11.

Rejection Of Claim 20 Under 35 U.S.C. § 102(b)/§ 103(a)

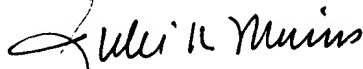
Claim 20 is rejected under § 102(b) as being anticipated by Nebolon or, in the alternative, being unpatentable over Nebolon. The Examiner states that Nebolon discloses the structure and ability to selectively adjust the length of the bracing member to adjust the circumferentially spiraling distance. The rejection is traversed. Nebolon does not teach or disclose a device for actively resisting axial rotation in a joint (i.e., limit rotation of one side of the joint (e.g. upper leg) relative to the other side of the joint (e.g., lower leg). Rather, the Nebolon device is directed to limiting varus and/or valgus movement in a joint (i.e., medial or lateral displacement of the joint). It must be emphasized that the Nebolon disclosure states that the medial and lateral support straps, which the Examiner equates to the claimed circumferentially spiraling bracing member, operate to prevent axial rotation of the cuffs 22, 28 of the device; they do not operate to prevent axial rotation of the joint. Nowhere in the Nebolon reference does it teach or suggest that the device is structured to resist axial rotation in the joint. Those skilled in the art would not presume from the Nebolon reference that it purports to resist axial rotation, only varus/valgus movement. As described fully in the specification of the present application, post/hinge/strap devices, of which Nebolon is one, do not operate to resist axial rotation in the joint. Not only does Nebolon not disclose a circumferentially spiraling bracing member as claimed, it operates in an entirely different way and for a different purpose than the claimed method of claim 20. Therefore, claim 20 is neither anticipated nor obviated by claim 20.

CONCLUSION

The Applicant submits that the claims present patentable subject matter. Reconsideration and allowance are requested. Should the Examiner have further

questions, particularly regarding the structure and operation of the invention as compared to such devices as disclosed in the Nebolon and Bodenschatz references, the Applicant requests that the Examiner contact the undersigned by telephone to discuss the matter further.

Respectfully submitted,



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Attachments: Replacement FIGS. 2, 9, 11 and 14